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Based on a random, representative sample of Army enrollees in the Active Duty Dependents Dental Insurance Plan (ADDDIP), we found that soldiers turned to many sources to learn about the plan and that oral sources were consulted more commonly than written sources. More than 40% of Army enrollees have never used the plan. Officer's dependents have used the ADDDIP to a fuller extent than enlisted dependents. Over half of Army enrollees felt program enrollment should be renewed automatically. The best-liked features of the ADDDIP included good cost-value, known services covered, and access to a single family dentist.

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Marketing and Utilization of the Active Duty Dependent's Dental Insurance Plan

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Based on a random, representative sample of 2,733 officer and 7,938 enlisted Army enrollees in the Active Duty Dependent's Dental Insurance Plan (ADDDIP), we found that soldiers turned to many sources to learn about the plan and that oral sources were consulted more commonly than written sources. More than 40% of Army enrollees have never used the plan. Officer dependents have used the ADDDIP to a fuller extent than enlisted dependents. Over half of Army enrollees felt that program enrollment should be renewed automatically. The best-liked features of the ADDDIP included good cost value, known services covered, and access to a single family dentist.

Introduction

In the summer of 1989, declining enrollments in the Active Duty Dependents Dental Insurance Plan (ADDDIP) prompted the House Armed Services Committee to voice concern that "inadequate marketing" might be adversely affecting the program.[1] This concern prompted us to conduct a marketing survey of the ADDDIP in the spring of 1990. Marketing research typically focuses on the process by which people make decisions.

Although previous Army studies on the ADDDIP explored enrollment demographics or satisfaction with the benefit package,[2-5] no studies have investigated the way military families learned about the ADDDIP in order to make their enrollment choice or the extent to which enrollees have used the program. According to Bandura's "social learning theory," consumers shape attitudes and behaviors largely based on communication with other people and through contact with the mass media.[6] Drawing on this theory, we drafted questions to probe how Army enrollees evaluated the ADDDIP. We also solicited enrollee recommendations on how reenrollment should be managed, where would be the most convenient source to obtain information on the plan, what are the best-liked features of the ADDDIP, and to what extent Army enrollees have used the plan. Insights from this study suggest ways that marketing of the ADDDIP can be improved.

Methods

In the spring and fall of every year, the Army Personnel Survey Office, U.S. Army Research Institute for the Behavioral and Social Sciences, conducts a Sample Survey of Military Personnel worldwide. Approximately 10% of officers and 5% of enlisted personnel are selected to participate. Samples are selected from the Army Standard Installation/Division Personnel System using the last two digits of the service member's social security number selected randomly for each survey. For the spring 1990 survey, 3,705 officers and 13,555 enlisted soldiers returned completed questionnaires, representing a 56.5% and a 68.4% response rate, respectively.

For our analysis, we limited the sample to a subset of respondents—those with dependents enrolled in the ADDDIP. Eliminating all single personnel without dependents, all childless, married personnel with active duty spouses, and all personnel stationed outside the 50 U.S. states reduced our sample to 2,733 officers and 7,938 enlisted personnel. Sample size for each survey question may vary due to non-response.

We tested for statistical differences in response to the survey questions between officer and enlisted personnel using the chi-square test. Tests were done at both the 0.05 and 0.01 level of significance. It should be noted that for multiple-response questions, the chi-square test applies to the overall distribution of responses rather than to each level of response. Analyses were completed using the Statistical Package for the Social Sciences.

Results

Table I presents responses, by rank group, to the marketing survey. Beside each response, in parentheses, is the SD for the 95% confidence interval. Due to the relatively large sample size, each estimate has a narrow confidence band.

Because the confidence intervals were so tight, nearly all survey responses showed statistically significant differences between officers and enlisted personnel. All but two survey questions were statistically significant at the 95% confidence level and all but four at the 99% confidence level.

As is illustrated by these data, with a large sample, even a very small difference between two groups may turn out to be statistically significant. When this occurs, the data should be closely scrutinized to determine whether observed differences are of any practical importance. Only six practically significant differences emerge. (1) Officers (59.9%) are more likely to consult their spouses concerning enrollment in dental insurance than enlisted personnel (45.3%). (2) Enlisted personnel (34.4%) are more likely than officers (16.2%) to turn to their chain of command for information about the ADDDIP. (3) Officers (43.8%) are more likely than enlisted personnel (35.6%) to consult posters or brochures to learn about the ADDDIP. (4) Officers (21.4%) are more likely to read the Evidence of Coverage

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TABLE I

COMPARISON OF RESPONSES TO MARKETING AND UTILIZATION QUESTIONS ABOUT THE ACTIVE DUTY DEPENDENTS DENTAL INSURANCE PLAN BETWEEN OFFICER AND ENLISTED PERSONNEL

Question	Officers	Enlisted
Who participated in the enrollment decision?	n = 2,470	n = 6,419
Service member only	37.8% (1.9%)[a]	49.3% (1.2%)
Service member and spouse	59.9% (1.9%)	45.3% (1.2%)
Spouse only	2.2% (0.6%)	5.4% (0.6%)
$\chi^2 = 166.76^{b,c}$		
Which of the following sources of information did you consult to learn about the ADDDIP?		
Finance office, CHAMPUS health benefits advisor, or personnel office	n = 1,621	n = 2,703
	54.9% (2.4%)	58.3% (1.9%)
$\chi^2 = 4.79^{b}$		
Newspapers or magazines	n = 1,621	n = 2,710
	24.2% (2.1%)	24.7% (1.6%)
$\chi^2 = 0.13$		
NCO or commanding officer	n = 1,604	n = 2,685
	16.2% (1.8%)	34.4% (1.8%)
$\chi^2 = 166.51^{b,c}$		
Posters or brochures	n = 1,604	n = 2,700
	43.8% (2.4%)	35.6% (1.8%)
$\chi^2 = 28.79^{b,c}$		
Friends	n = 1,599	n = 2,686
	29.5% (2.2%)	35.0% (1.8%)
$\chi^2 = 13.61^{b,c}$		
For questions about the ADDDIP, who would you turn to?	n = 1,617	n = 2,771
Delta dental, the insurer	21.2% (2.0%)	20.3% (1.5%)
The Evidence of Coverage booklet given to plan members	21.4% (2.0%)	14.9% (1.3%)
Special counselor in unit	1.6% (0.6%)	6.5% (0.9%)
Civilian dentist in the plan	7.0% (1.2%)	6.9% (0.9%)
Army dental clinic	27.4% (2.2%)	31.9% (1.7%)
Personnel office, finance office or CHAMPUS advisor	21.5% (2.0%)	19.4% (1.5%)
$\chi^2 = 86.36^{b,c}$		
Where would be the most convenient place for you to go for information on the ADDDIP?	n = 1,611	n = 2,767
Military personnel office	9.3% (1.4%)	7.3% (1.0%)
Finance office	2.5% (0.8%)	4.1% (0.7%)
CHAMPUS health benefits advisor	33.0% (2.3%)	34.3% (1.8%)
Unit orderly room	10.1% (1.5%)	11.6% (1.2%)
Army dental clinic	37.5% (2.4%)	36.2% (1.8%)
Other	7.7% (1.3%)	6.3% (0.9%)
$\chi^2 = 18.54^{b,c}$		
Which one feature do you like best about the ADDDIP?	n = 1,541	n = 2,702
Know services covered	19.3% (2.0%)	22.0% (1.6%)
Easy to make appointments	12.4% (1.6%)	11.3% (1.2%)
Family can get care from one dentist	21.4% (2.0%)	26.4% (1.7%)
Convenient appointment times	9.8% (1.5%)	5.2% (0.8%)
Good cost value	24.3% (2.1%)	22.6% (1.6%)
Civilian dentists treat my family with respect	12.9% (1.7%)	12.5% (1.2%)
$\chi^2 = 45.49^{b,c}$		
How should program enrollment be renewed?	n = 1,598	n = 2,725
By choice at in-processing	21.8% (2.0%)	25.1% (1.6%)
By choice every 2 years	21.1% (2.0%)	19.4% (1.5%)
Automatically unless requested otherwise	57.1% (2.4%)	55.5% (1.9%)
$\chi^2 = 6.57^{b}$		
Have any of your dependents used the ADDDIP?	n = 1,739	n = 2,770
None	40.1% (2.3%)	42.1% (1.8%)
Some	22.8% (2.0%)	31.6% (1.7%)
All	37.1% (2.3%)	26.3% (1.6%)
$\chi^2 = 71.59^{b,c}$		
Have your dependents used the ADDDIP for dental care other than examinations and teeth cleaning?	n = 1,627	n = 2,693
Yes	40.6% (2.4%)	38.2% (1.8%)
No	59.4% (2.4%)	61.8% (1.8%)
$\chi^2 = 2.49$		

[a]Parentheses contain SD values for 95% confidence interval.
[b]Significant at the 95% confidence level.
[c]Significant at the 99% confidence level.

booklet to answer questions about the ADDDIP than enlisted personnel (14.9%). (5) Enlisted personnel (6.5%) are more likely to ask special unit counselors about the ADDDIP than officers (1.6%). (6) It is more likely that an officer's dependents (37.1%) are using the insurance plan to the fullest extent than an enlisted person's dependents (26.3%).

In addition to these differences, the following four common areas of strong agreement should be noted. (1) The most common sources (55–58%) consulted to learn about the ADDDIP were the finance office, CHAMPUS health benefits advisor, and personnel office. (2) Two-thirds or more of officers and enlisted personnel considered the CHAMPUS health benefits advisor and the Army dental clinic as the most convenient place to go for information on the ADDDIP. (3) A majority of ADDDIP enrollees (55–57%) felt program enrollment should be renewed automatically. (4) The top three best-liked features of the ADDDIP (accounting for 60% or more of responses) included (a) know services covered, (b) family can get care from one dentist, and (c) good cost value.

Discussion

This survey was conducted in 1990, 3 years after the Active Duty Dependents Dental Insurance Plan became operational. By that time, the original basic plan, which had covered dental examinations, oral prophylaxes, and non-cast restorations, had been expanded slightly to include sealants and stainless-steel crowns for children. Premiums had increased from $3.93 per month to $7.86 per month for one dependent and from $7.86 per month to $9.42 per month for two or more dependents.

Results from this survey show that Army enrollees in the ADDDIP consulted many sources in reaching their enrollment decision. However, not all of these sources carried equal weight. Oral sources were consulted more frequently than written sources. Officers were more likely than enlisted personnel to consult written sources and, also, to consult their spouses about enrollment decisions. The former finding may be due to the relative ease of using an oral reference as opposed to a written one, while the latter one may be due to socio-cultural differences between officer and enlisted personnel. That the finance office, CHAMPUS health benefits advisor, and personnel office were most frequently consulted is not surprising. After all, administrative responsibility for the ADDDIP rests with a post's finance office.

The level of consultation with spouses by service members, especially among officer personnel, suggests that marketing of the ADDDIP should be aimed at both the sponsor and the spouse. Concentrating on the sponsor only misses a key player (spouse) in the decision-making process for family dental care in many military households.

The relatively frequent consultation of friends suggests that expanded enrollment in the ADDDIP will, in part, be determined by satisfaction of current enrollees. It also suggests a marketing strategy featuring testimonials of satisfied enrollees. These testimonials should highlight characteristics that enrollees like best about the ADDDIP such as cost value, ability to get family care by one dentist, and consistent family access to basic dental care regardless of assignment location. The latter is especially important to junior enlisted personnel assigned overseas or to high-cost of living areas in the U.S. It is not uncommon for these soldiers to have their dependents live with relatives far away from a military installation.

The two sources—Army dental clinics and the CHAMPUS health benefits advisor—that were cited as the most convenient place to get information on dependent dental insurance are closer to providers of health care than purely administrative sources. Personnel, finance, or orderly room staff may be too unfamiliar with specifics of the ADDDIP or may be regarded as too impersonal in addressing soldier's inquiries about the ADDDIP. Respondents appear to be saying that they would prefer that questions about how dependent dental insurance works should be handled by individuals with some knowledge of the delivery of dental care.

Although a majority of Army enrollees favor automatic re-enrollment, a significant proportion of respondents do not. Clearly, automatic re-enrollment would be easiest for enrollees and administrators. However, without periodic review, enrollees may be unaware of changes in the benefits package which may influence their utilization of the plan or their enrollment choice. Perhaps this could be addressed by noting changes in the plan on the soldier's leave and earnings statement.

To us, it is perplexing that 40% or more of Army enrollees in the ADDDIP have never used the plan. To voluntarily enroll and pay the monthly premium but not take advantage of services covered 100% by the plan (examinations and teeth cleanings) seems unusual; however non-utilization rates of 40% or better have been documented in other insured populations.[7–16]

The utilization rate seen in this sample (59.9% for officer and 57.9% for enlisted families) compares favorably to that found in civilian insured groups (46% to 68.7%).[7–16] Several civilian studies have revealed marked differences in dental utilization across socioeconomic status.[12–16] This may explain the observed differences in utilization between officer and enlisted personnel in our study. Perhaps there are some access barriers such as not being able to find a suitable dentist who participates in the plan, fear of the dentist, or other uncertainties about seeking non-military dental care that keeps some enrollees from using the ADDDIP. Factors related to non-use of dental services by Army enrollees should be further explored, and the government should encourage enrollees to make use of the plan's preventive services in order to keep long-run costs of the program low.

Recently, Congress appropriated $50 million to expand ADDDIP benefits in April 1993. The expanded plan will include the following services not covered under the current plan: wisdom teeth extractions, root canals, crowns, bridges, dentures, gum surgery, and braces. Premiums will increase to about $20 per month with co-payments ranging from 20–50% depending on the procedure.[17]

We anticipate that these improvements will enhance plan enrollment because they will solve two major problems with the current ADDDIP. First, in previous studies, Army families have identified limited coverage as a major reason for not enrolling in the ADDDIP and have expressed a willingness to pay more for expanded ADDDIP benefits.[3–5] Second, limited coverage has forced many ADDDIP enrollees into seeking care for non-covered services at military dental clinics, thereby fragmenting family dental care. In a 1989 survey of Army ADDDIP

enrollees, 63.2% and 56.9% of officer and enlisted families, respectively, considered fragmented family dental care to be a problem.[18]

However, to maximally enhance ADDDIP enrollment, ADDDIP program managers must not only solve deficiencies in the benefits structure. They must also market the plan. ADDDIP managers would benefit by applying the findings outlined in this report and by conducting periodic marketing surveys similar to this one in order to better service military families.

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